CLEAN VERSION OF REWRITTEN OR ADDED CLAIMS PURSUANT TO 37 CFR § 1.21 (c)(1)(i)

Please cancel claims 2 and 18.

Please enter the following amended claims:

- 1. A method for the detection of multiple sclerosis comprising:
 - a) providing: i) a first brain tissue sample from a human suspected of having a demyelinating disease, ii) a second brain tissue sample from a human free from the pathological manifestations of a demyelinating disease, and iii) iron binding protein;
 - b) reacting, in vitro, said first and second brain tissue samples with said iron binding protein; and
 - c) comparing the degree of binding of said iron binding protein with said first and second brain tissue samples under conditions such that said second brain tissue sample is evaluated for anatomical changes consistent with a diagnosis of multiple sclerosis.
- 3. The method of Claim 1, wherein said brain tissue is collected *via* surgical biopsy.
 - 17. A method for the detection of multiple sclerosis comprising:
 - a) providing: i) a first brain tissue sample from a human suspected of having a demyelinating disease, ii) a second brain tissue sample from a human free from the pathological manifestations of a demyelinating disease, and iii) iron binding protein wherein said iron binding protein is linked to a detectable marker;

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c)

b) reacting, in vitro, said first and second brain tissue samples with said iron binding protein; and

comparing the degree of binding of said iron binding protein with said first and second brain tissue samples under conditions such that said second brain tissue sample is evaluated for anatomical changes consistent with a diagnosis of multiple sclerosis.

19. The method of Claim 17, wherein said brain tissue is collected via surgical biopsy.